Acute Respiratory Infections: Key Challenge of the 1990s

Address by
James P. Grant
Executive Director of the
United Nations Children's Fund
(UNICEF)

to the
International Consultation
on the Control of
Acute Respiratory Infections

Washington, D.C., U.S.A.
11 December 1991

unicef

As part of the process to follow up and implement the year 2000 goals adopted by the 1990 World Summit for Children, the World Health Organization (WHO), the United Nations Development Programme (UNDP) and the United Nations Children's Fund (UNICEF) co-sponsored the first global gathering, held in Washington, D.C., 11–13 December 1991, to focus specifically on strategies to prevent and control acute respiratory infections (ARI). Pneumonia accounts for 80 per cent of the 4.3 million deaths which these infections cause annually throughout the world. On 11 December, the UNICEF Executive Director addressed the International Consultation on the Control of Acute Respiratory Infections (ICCARI I), which was attended by more than 400 leading international public health officials from 60 countries, including 20 health ministers. In the speech, he explains why reaching the World Summit goal of reducing ARI-related deaths by one third by the end of the decade is "more feasible" than the 1990 goal that was successfully reached in the immunization effort.

READEX
FICHE

Acute Respiratory Infections: Key Challenge of the 1990s

On behalf of UNICEF, which has joined with WHO and UNDP in sponsoring this meeting, I join in welcoming you to the first International Consultation on the Control of Acute Respiratory Infections (ICCARI I). This is the first major global gathering to focus exclusively on ARI, but it is by no means the first time many of us and many of our organizations and governments have come together to open new pathways for revolutionary advances in child survival and development. There is great expertise, experience and power in this room, expertise to sharpen our understanding, experience to guide us in formulating new strategies, and power — yes, power — to effect real change and make a difference in the years ahead.

I remember well a similar gathering eight years ago in this city of Washington — the International Conference on Oral Rehydration Therapy (ICORT I) — when we collectively launched the accelerated effort to promote ORT, which is now saving the lives of more than a million children annually, some three to four thousand a day. We have a similar potential for dramatic progress in controlling acute respiratory infections.

Our presence here today is another important step toward fulfilling the commitments made one year ago at the World Summit for Children. At that first global Summit, that first testing of the post-cold war waters, 71 heads of State and Government and senior representatives of another 88 countries committed themselves and their Governments to give children's essential needs a 'first call' on society's resources and energies, in bad as well as in good times. And they backed up this remarkable promise with an even more remarkable Plan of Action to reach 27 specific goals by the year 2000, with international monitoring of progress along the way. The presidents, prime ministers and kings pledged to slash infant and under-five mortality rates by one

third or to 50 and 70 per 1,000 live births, respectively, whichever is less, which we estimate would save the lives of 50 million children over the decade. More specifically relevant to our meeting, they promised to reduce by one third the deaths due to acute respiratory infections in children under five years of age.

In October, many of us and many of our organizations took up another piece of the challenge, at the International Policy Conference on Micronutrient Malnutrition, 'Ending Hidden Hunger', held in Montreal. There, we laid operational plans to go on the offensive to accomplish, by the year 2000, the elimination of iodine and vitamin A deficiencies and a reduction of iron-deficiency anaemia by at least one third.

How feasible are these goals for ARI and micronutrient deficiencies? More feasible, I say, than that set earlier for immunization. And as you know, in October, at United Nations Headquarters, the Director-General of WHO and I had the happy privilege of certifying to the Secretary-General of the United Nations the achievement of universal child immunization 1990: coverage of 80 per cent of the world's under-one-year-olds with vaccines against the six major child-killers and -cripplers, a goal affirmed by the international community in 1985. At that moving commemoration of the largest global collaboration ever mounted in peacetime, we not only celebrated the saving of 12 million lives since the immunization effort began (including more than 3 million last year alone), but we celebrated our new confidence to reach 90 per cent immunization coverage and polio eradication by the year 2000, two of the more than 20 goals endorsed at the Summit.

The Summit participants promised to draft, by the end of this year, national programmes of action to implement the year 2000 goals (including, of course, that for ARI) and we expect about 100 countries to have theirs ready on schedule, with others following soon after. When I was recently in Peru and Mexico, I was given copies of their national programmes, and tomorrow I'll be in Honduras, at the Central American Summit, during which the seven presidents of the region will sign and set in motion their national programmes. So things are

moving on a number of fronts, with considerable enthusiasm and seriousness of purpose.

We are here today to face up to one of the most formidable health challenges of the 1990s: the need to accomplish a dramatic reduction in ARI deaths among young children. Where significant progress has been made in immunization coverage and using oral rehydration therapy to treat diarrhoea, acute respiratory infections have become the principal cause of child mortality.

What does this mean?

- In the time it takes for my comments here today, approximately 170 children under five will die gasping for breath. ARI is a fast worker, usually bringing death within three to five days of onset.
- While their suffering may take many forms, over 80 per cent will succumb to pneumonia, and fatalities will be greatest for the youngest.
- By the end of the day, more than 7,000 will have died from pneumonia, almost 10,000 if you include neonatal deaths, in which pneumonia is suspected as the primary cause. This figure becomes all the more dramatic if you consider all ARI-related deaths, including those associated with measles and pertussis. That gives you 12,000 deaths per day, or 4.3 million a year.
- If nothing is done, some *45 million* children will be lost to ARI before the end of this decade.

This is the scope of the challenge facing us. These deaths would be tragic enough in a world in which no cure was available and effective help not possible. Yet how much more tragic are they in a world in which:

- well over half and in some countries as much as 80 per cent of pneumonia episodes are caused by easily identifiable bacterias treatable with antibiotics;
- a world in which the cost of a five-day course of an appropriate antibiotic *is less than 25 cents*;
- a world in which we now have reliable, objective methods to diagnose and treat pneumonia in young children;
- and a world in which application of these tools has consistently reduced pneumonia deaths between 25 and 67 per cent?

It goes beyond tragedy. It is an *obscenity* that the number of pneumonia deaths remains so high, given

the existence of effective, low-cost, life-saving treatment. Why is the toll still so alarming?

- Pneumonia strikes the very young, often in the first two months of life and before any contact is made with the health system.
- Pneumonia strikes quickly, in most cases taking young lives within three to five days.
- Mothers are not taught to recognize danger signs and do not know when and where to seek help. Once pneumonia sets in, there is little a mother can do at home to reduce its severity or loose its deadly grip. The world has yet to launch the massive informing and motivating effort required.
- Treatment requires an antibiotic and contact with a trained health provider having access to life-saving drugs — and, all too often, these are not readily, or some would say, allowed — to be available.

Given all these difficulties, why is it thought that we can reduce ARI deaths by fully one third by the end of this decade? What makes this ambitious World Summit goal doable? The answer, I believe, is at once political and technical. Our actions to break the back of ARI will be greatly facilitated by a new international climate in which truly global cooperation is possible for the first time in more than half a century: the cold war has ended; defence expenditures are being reduced; democracy is expanding throughout the world. And the World Summit for Children has generated a momentum of high-level political commitment on which our efforts can ride, if we are skilful. We already have the basic tools and approaches we need to go into high gear, if we have the wisdom and the courage to apply them. Studies undertaken thus far show that when case management strategies have been correctly applied — regrettably, too rarely as yet — ARI-related mortality has plummeted an average 30 to 40 per cent.

That is why this is the right time to begin to 'go to scale' with standard case management, which has been widely adopted as the central strategy to reduce ARI deaths but has yet to be applied in any developing country on a national scale. While there is no simple remedy that parents can use at home at the first sign of pneumonia — as there is for diarrhoeal diseases — pneumonia deaths are nonetheless preventable. What are the components of our strategy?

- Early recognition of pneumonia by health workers (including community health workers), who distinguish it from other ARI by looking for such signs as fast breathing, chest in-drawing and inability to drink. Fast breathing is the key sign that antibiotics are necessary. Chest in-drawing and inability to drink signal more severe disease, requiring prompt referral to higher level health centres or back-up services.
- Non-severe pneumonia is treated at home with oral antibiotics.
- Children with severe pneumonia are given their initial dose of antibiotics at home and continue treatment in a health care facility.

What have been the results of standard case management thus far?

In Jumla, Nepal, community health workers were trained to diagnose and treat pneumonia in an exceptionally isolated community with high infant mortality and virtually no health services. Deaths from ARI were reduced significantly among children under six months old, and the overall infant mortality rate fell a full 19 per cent. In a similar effort in Kathmandu Valley, ARI-specific mortality among infants and under-fives fell by 40 per cent.

In Abottabad, Pakistan, community health workers in three clusters of mountainous villages were trained to identify and manage ARI. Results confirmed a 52 per cent fall in ARI-specific infant mortality and 55 per cent for under-five mortality.

On the island of Bohol, Philippines, midwives were trained to detect ARI and prescribe antibiotics for pneumonia. Over a two-year period, ARI-specific under-five mortality fell by 28 per cent; among infants, mortality rates dropped a full 30 per cent.

In Kediri, Indonesia, ARI control was initiated in conjunction with immunization, diarrhoea control, nutrition, maternal and child care and family planning activities. Preliminary results: a 50 per cent drop in ARI-specific mortality rates among both infants and under-fives.

In Papua New Guinea, training staff in two health centres reduced hospitalization for ARI from 14 to 2 per cent. Mortality also fell significantly.

After one year of an ARI control programme in

Western Fiji, the use of antibiotics for coughs and colds fell from 60 per cent to 9 per cent, saving considerable amounts of money for both families and the health system.

While the strategies in each of these examples differ, they all share a key approach: the involvement of community health workers in case-finding, assessment, diagnosis and treatment. The ability of community health workers to identify and treat pneumonia cases effectively — if properly trained and backed up by referral facilities — has been reaffirmed in every region of the world. The question, therefore, is not *whether* national ARI control programmes should move in this direction but *how fast* they are able to do so and *how effectively* appropriate support and referral facilities can be developed and implanted on a national scale.

The importance, indeed the necessity, of correct and timely interaction with a health provider in no way diminishes the key role of mothers and families in preventing pneumonia deaths. An international experts' meeting last year underlined the importance of prompt, appropriate action at home. Studies conducted in several countries confirm mothers' ability to discern serious illness and their willingness to support standard case management. They will be our staunchest allies in the struggle we now face.

The deadly nature of pneumonia requires early recognition, prompt treatment and close follow-up. To rely exclusively on physicians and visits to health centres for diagnosis and treatment, as is so often the practice, amounts to resigning ourselves to unacceptably high levels of mortality. Empowering community health workers with standard case management techniques, including the use of antibiotics, and empowering parents with an understanding of what can be done at home and when to call for help, is the only way we are going to get the results we need.

Based on the studies I have cited and the experience gained thus far, WHO estimates that by increasing the pneumonia cases receiving correct case management from the current 20 per cent to 60 per cent by the year 2000, 15 million pneumonia deaths would be averted, bringing the death toll down from

45 million to about 29 million, a 35 per cent reduction over 10 years.

At the same time, the cost of treating a case of pneumonia would fall from an average of US$45, which includes the specialized hospitalization necessitated by cases presented too late or cared for incorrectly, to less than US$3.50 per case receiving prompt standard case management, usually at peripheral health facilities. On this basis, the cost of achieving the goal of a one-third reduction in ARI deaths will range between US$950 million and US$1.3 billion. If developing countries contribute two thirds of these costs, some US$285 million to US$400 million in international assistance will be required during the next decade — between US$28 and US$40 million per year. This is a small — a very small — amount to invest to get such a formidable return.

A few words about prevention. First, immunization here is key. About one in five pneumonia deaths — nearly a million annually — are linked to measles or pertussis. Pneumonia often develops during the acute phase of the measles episode or some time afterwards. A study in India, for instance, showed that children who recovered from measles had a sixfold increase in ARI during the following six months. For these cases, immunization is a safe, low-cost and effective preventive strategy. This is one more of the many compelling reasons to sustain high immunization levels in the years to come.

Improving the nutritional status of young children is the second major preventive strategy. The most promising interventions in this regard include the promotion of breastfeeding and correction of vitamin A deficiencies. In Brazil and Peru, non-breastfed infants had a 3.5 and 5 times greater risk of pneumonia, respectively. One study in Indonesia showed that children with mild vitamin A deficiency suffered twice as many bouts of ARI as those who did not. In addition, two of the most important risk factors for pneumonia are low birth weight and malnutrition. Low-birth-weight babies in Brazil and India were found to have a 3-8 times greater risk of dying from pneumonia; malnourished children are, on average, at two times greater risk.

Finally, taking steps to make the breathing envi-

ronment less dangerous, less conducive to ARI, is vital to prevention. Reducing indoor and outdoor air pollution, exposure to passive smoking and overcrowding are only a few of the measures that we know would reduce pneumonia incidence.

I am certain your deliberations here in Washington this week will enrich our knowledge and enhance our commitment to reducing ARI among young children. It is a task too long awaiting attention, too often put aside as too hard, too complicated, too expensive. As you discuss ways of meeting the ARI challenge, I invite you to consider the following points:

1. ***Recognize immunization as the most effective strategy available to prevent ARI.*** Sustaining high coverage levels and making determined efforts to 'reach the unreached' must remain a top priority. Almost all the intervention studies I cited earlier found dramatic, synergistic effects between immunization and standard case management, especially concerning measles vaccination. Furthermore, it may well be possible that vaccines given to the mother will also protect the child during the early months of life, as tetanus, pneumococcus and H-flu antibodies cross the placenta during gestation. More research should be done in this important area.

2. ***Promote standard case management as an effective, low-cost strategy for treating childhood pneumonia.*** To achieve our goal of one-third reduction in ARI deaths, at least six out of ten children in developing countries should have access to correct case management by the year 2000.

3. ***Encourage the development of ARI control activities as an essential part of a basic primary health care package at the community level.*** The synergism among interventions has been amply demonstrated; the challenge now is to achieve this synergism on a national scale. The community health worker we rely on to treat ARI is the same one who will immunize, advise on ORT, distribute vitamin A tablets and offer a wide range of other services. We must strive to support his/her multitude of tasks and to involve the community more fully in all aspects of health planning and service delivery.

4. ***Involve community health workers in finding, assessing and treating pneumonia, backed by appro-***

priate referral services. Trust them to administer antibiotics. Only by moving treatment 'closer to home' will the most vulnerable be reached. At the same time, improve both access to correct case management within the health system and the quality of services offered. Community-based services complement, and extend the reach of, those offered in the health system. They do not replace them or render them less important.

5. ***Involve mothers and communities fully in this effort.*** They, more than anyone else, know when their children are seriously ill and, given the necessary skills and support, will respond quickly to signs of danger.

6. ***Prevent pneumonia by ensuring that every child has access to immunization, good nutrition, breastfeeding and a healthy environment.*** While initial emphasis must be given to improving case management, we must move as quickly as possible to stem the tide of pneumonia cases by applying what we already know and striving to learn more in this important area.

7. ***Learn from past experiences, especially the control of diarrhoeal diseases.*** While ARI must be treated sooner in the course of the disease, thus calling for greater skill on the part of the health worker and their access to antibiotics, there are also many similarities with control of diarrhoeal diseases. Mothers and families can play a key role in recognition and, eventually, prevention of the disease. Health workers can be taught case management. Increased fluids and continued feeding are essential to successful treatment. At the same time, let us learn from our mistakes. Linkages with nutrition must be understood from the beginning and interventions developed in response. Prevention must also be emphasized early, not as an afterthought to national programmes. In brief, while much remains to be done, the substantial success we are achieving in promoting ORT and the expanded programme on immunization to reduce child deaths should inspire hope and confidence as we move to expand and solidify ARI control efforts.

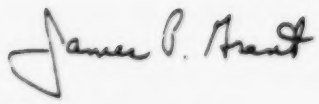
We must do what has not yet been done in any country for ARI: first, to go to national scale, to reach the unreached, and second, to mobilize for this cause

the vast new capacity we have to communicate — via radio and television, via religious leaders and teachers, through all available channels. Until we do so, an unacceptably large percentage of the world's children will continue to be claimed by this preventable and curable scourge.

The great Chilean poet Gabriela Mistral once wrote: "Many things we need can wait, the child cannot. Now is the time his bones are being formed, his blood is being made, his mind is being developed. To him we cannot say tomorrow, his name is today."

We are here today because, like the child, we cannot wait. Each and every one of us, each in our own spheres of activity, have realized that — paraphrasing Primo Levi — if we can relieve torment and do not, we become tormentors ourselves.

We know what we must do, and its name is today.



James P. Grant
Executive Director
United Nations Children's Fund (UNICEF)

---

11 December 1991

Printed on recycled paper